Frequently Asked Questions on Scottsdale's Superfund Sites

June 2013

What is a Superfund site?
According to the U.S. Environmental Protection Agency, there are five federal Superfund sites in the Phoenix metro area, including Scottsdale's North Indian Bend Wash (NIBW) site. A Superfund site can only be designated by the EPA for an area of contamination. The Superfund designation allows for federal funding to help with cleanup efforts and is monitored and regulated by the EPA.

Who pays to clean up a Superfund site?
In short, the Superfund policy is to "let the polluter pay." In the case of the NIBW Superfund site, this refers to the three companies deemed potentially responsible for the contamination—Motorola Solutions, Inc.; GlaxoSmithKline (formerly SmithKline Beecham); and SMI Holding LLC (formerly Siemens).

Where is the NIBW Superfund site?
The NIBW Superfund site area is from McDonald Drive to the north, Pima Road to the east, Scottsdale Road to the west and McKellips Road to the south.

The site is designated by the EPA as the area over the plume of contamination. Click here to view an area map provided by the EPA. (PDF/2.40MB/1 page) If you aren't sure if your home is within the site, please call 480-312-8743.

What is the history of the NIBW Superfund site?
Groundwater contamination at NIBW was discovered in 1981 when industrial chemicals, primarily Trichlorethylene (TCE), were found in several Scottsdale area drinking water wells. As a result, local water providers stopped using those wells for drinking water purposes. The EPA identified the potentially responsible parties causing the contamination and determined that a long-term cleanup effort would be required.

Who are the key entities involved in the NIBW Superfund site and what is their role?

- U.S. EPA - Monitors the contamination plume, identifies those parties potentially causing the contamination, establishes a cleanup remedy and directs the cleanup of the site.
- State of Arizona – Arizona Department of Environmental Quality (ADEQ) and Arizona Department of Water Resources (ADWR) - Oversees the cleanup for the state.
- Potentially Responsible Parties (as designated by the EPA) – Motorola Solutions, Inc., GlaxoSmithKline and SMI Holding LLC - Responsible for costs associated with the cleanup.
- City of Scottsdale (the drinking water provider) - Operates the Central Groundwater Treatment Facility (CGTF) and the North Indian Bend Wash Granular Activated Carbon Treatment Facility (NGTF) to ensure the water produced by the plants meets or surpasses all federal and state standards for safe and healthy drinking water.
- Salt River Project – Responsible for groundwater monitoring of much of the site and allowing the use and access to their wells within the site.

What is the current status of the Superfund cleanup activities?
In 2012, EPA approved the final design for a new treatment facility for the long-term remedy for NIBW site. This facility extracts water from well PCX-1 and uses a Liquid Granular Activated Carbon (GAC) treatment process to clean and treat the water. Construction of the NIBW GAC Treatment Facility (NGTF) for well PCX-1 began in late 2012 and was completed in June 2013. Testing of the new facility began in late June 2013. Previously, water from PCX-1 was treated at the Miller Road Treatment Facility.

During the summer of 2013, a pipeline construction project will connect the NGTF to the City of Scottsdale's Chaparral Water Treatment Plant. Once the pipeline is connected to the city's water treatment plant, it will enhance Scottsdale's water portfolio allowing the city to pump less water from other nearby well. Until the pipeline is completed and when Scottsdale is unable to take the water from PCX-1, the treated water will be discharged into the nearby Arizona Canal.

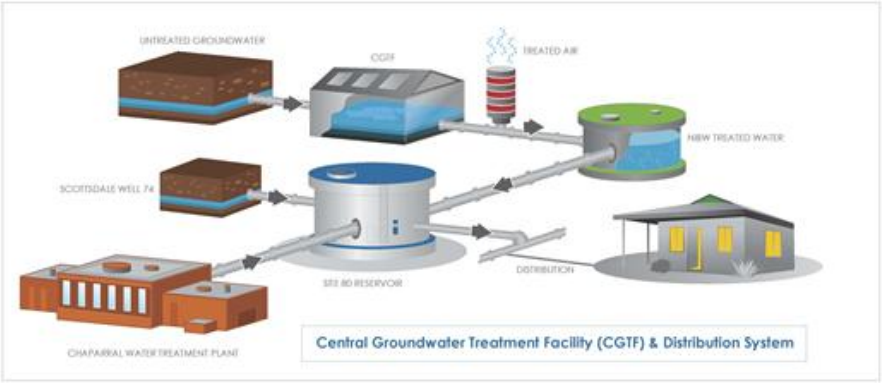
How long will the Superfund cleanup activities take?
It's estimated that the cleanup will take approximately 30-50 years. However, large portions of the groundwater plume cleanup should be completed before that time. In March 2013, the EPA announced that the upper aquifer plume has decreased in size by 84%, and the total mass of contaminants in the upper aquifer groundwater has decreased by over 97%. Because the upper aquifer is almost restored, formal closure of 25 NIBW upper aquifer monitoring wells is planned for the fall of 2013.

Clean-up will continue in the middle and lower aquifer until they reach the same level of clean-up. This is still estimated to take thirty to fifty years.

Treatment Facility Information

What is the CGTF?
The CGTF is the Central Groundwater Treatment Facility and is owned and operated by the city of Scottsdale. The plant, located near Pima and Thomas roads, was built by the potentially responsible parties. The plant treats water pumped from four groundwater wells that contain TCE. The water is treated to federal and state drinking water standards, under the oversight of the EPA in cooperation with ADEQ.

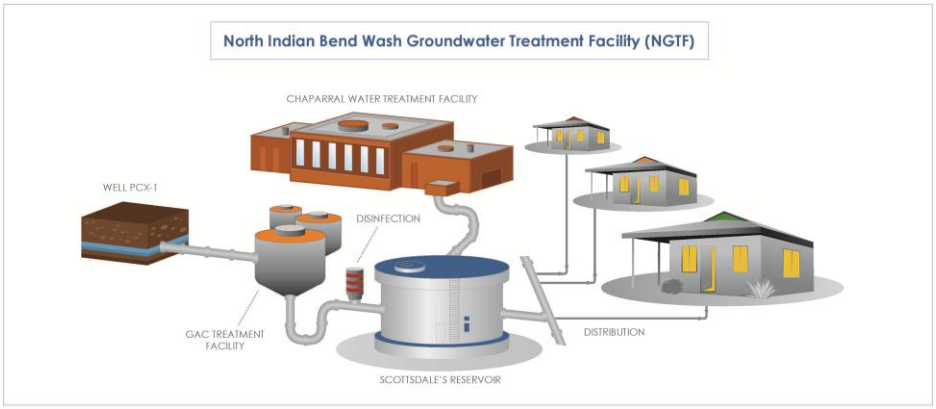
How does the CGTF work?
The treatment facility uses a proven process that "strips" the water of contaminants by mixing it with air. Water pumped from the four wells filters down through three treatment columns. As the water and air mix, the contaminants attach themselves to the air. The treated water is then moved to a reservoir for final treatment before it is delivered to the City of Scottsdale drinking water system. The water in the reservoir is combined with other treated water sources to meet customer demand. The air used in the treatment process is passed through activated carbon filters to remove the contaminants before it is released.



Central Groundwater Treatment Facility (CGTF) & Distribution System

What is the NGTF?
The NGTF is the North Indian Bend Wash Granular Activated Carbon Treatment Facility and is owned by the Participating Companies and operated by the City of Scottsdale. The plant treats water pumped from an SRP owned groundwater well known as PCX-1 that contains TCE. The water is treated to federal and state drinking water standards, under the oversight of the USEPA in cooperation with ADEQ.

How does the NGTF work?
The treatment facility uses granular activated carbon (GAC) to adsorb and remove the contaminants. Initially a total of three treatment trains with two GAC vessels for each treatment train will be used. Only two of the treatment trains will be needed to handle the treatment for well (PCX 1) with the third train is a standby train to be used as back-up. The water from the well is pumped thru a pre-filter and then split evenly between two treatment trains. As the water passes thru the "lead" vessel on each treatment train the TCE is adsorbed onto the GAC. The water is then passed thru a second "lag" vessel and then discharged either to the Chaparral Water Treatment Plant or the Arizona Canal. The water combines in the CWTP reservoir with surface water treated by the CWTP and is used to meet customer demand.



How do I find out if the water I'm being served is from the CGTF or NGTF?
If you live below Indian Bend Road you will probably receive a blend of surface water and CGTF or NGTF water. Please note that these boundaries change slightly based on seasonal water demands.

How do you know the water from the CGTF or NGTF is safe?
All water provided by the city of Scottsdale consistently meets or surpasses federal and state drinking water standards. These standards are set to protect you against substances that may be harmful if consumed for long periods of time. The city of Scottsdale operates the CGTF and NGTF above and beyond normal operating procedures approved by the EPA and ADEQ. The facilities remove TCE from the water to a non-detect level (less than 0.5 parts per billion), which is far below the federal standard of 5 parts per billion.

For information on the quality of any water served by the City of Scottsdale, see the latest **Water Quality Report** or call 480-312-8732 for a copy.

Superfund and Your Property

If my property is within the Superfund site, do I need to disclose that fact when selling my home?
Yes. Whether disclosure is made by the seller or a real estate agent, the Superfund designation should be disclosed at the first discussion about the property. This will avoid any last-minute questions that could complicate the transaction. If you aren't sure if your home is within the site, please call 480-312-8743.

Are homeowners liable for cleanup costs?
No. Homeowners face no liability for contamination caused by others at Superfund sites. Most of Arizona's federal Superfund sites involve groundwater contamination resulting from the disposal of industrial solvents by manufacturing facilities.

In many instances, this water contamination has moved beyond the facilities boundaries to the aquifers under residential property. Buyers or sellers of residential property who have not caused or contributed to the contamination are not liable for the cleanup. In addition to the federal law, Arizona has its own mini-Superfund law which protects innocent homeowners from cleanup liability.